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EXAMINER

CHEN, QING

ART UNIT

PAPER NUMBER

2191

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/700,017	Applicant(s) MCVOY ET AL.	
	Examiner Qing Chen	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20081110</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Office action is in response to the amendment filed on March 3, 2009, entered by the RCE filed on the same date.
2. **Claims 1-14, 16, and 18-21** are pending.
3. **Claims 1 and 20** have been amended.
4. **Claims 15 and 17** have been canceled.

Continued Examination Under 37 CFR 1.114

5. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 3, 2009 has been entered.

Response to Amendment

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. **Claims 1, 3-10, 12-14, 16, and 18-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US 6,912,707 (hereinafter “Fontes”)** in view of **US 6,226,652 (hereinafter “Percival”)**.

As per **Claim 1**, Fontes discloses:

- producing a first set of stacked diffs between the first file and the common file (*see Figure 6; Column 4: 42-50, “... architect is creating revised base drawing 602.”; Column 9: 7-12, “These ‘changes only’ files are called ‘Diff Files.’” and “... instead of sending the entire revision 302 file back to architect 200, engineer 204 can send only the changes that engineer 204 made to base drawing 300.”*);
- producing a second set of stacked diffs between the second file and the common file (*see Figure 6; Column 4: 42-50, “Architect 200 creates base drawing 300 and sends base drawing 300 to engineer 204 via path 202. While engineer 204 is creating revision 600 ...”; Column 9: 7-12, “These ‘changes only’ files are called ‘Diff Files.’” and “... instead of sending the entire revision 302 file back to architect 200, engineer 204 can send only the changes that engineer 204 made to base drawing 300.”*);
- simultaneously displaying the first and second sets of stacked diffs, wherein common layers of the first and second sets of stacked diffs are aligned and missing layers of each of the first and second sets of stacked diffs are aligned with blank lines of the other stacked diff (*see Figures 10 and 12; Column 6: 40-48, “... the user can define which file is considered the revision 302 and which file is considered the revised base 500, such that the user-defined revision file 302 appears on the left and the user-defined revised base 500 file appears on the*

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right.”; Column 7: 1-5, “Window 1200 contains windows 1202 and 1204, which display the layer information for base drawing 300 and revision 302. Window 1200 can also be used with the merge and parallel evolution mode of the present invention. If a layer is missing from either base drawing 300 or revision 302, the layer appears as a blank line in the other drawing file's window 1202 or 1204.”; Column 9: 11 and 12, “The comparator 120 then uses the diff file as the revision file 302 for comparison purposes.”); and

- merging the first file and the second file to produce a merged result (*see Column 6: 35-39, “In merge mode, button 1010 allows the user to merge the changes of revised base 500 shown in window 1004 into revision 302 shown in window 1002.”*).

However, Fontes does not disclose:

- text files, common lines of text, and incongruous lines of text; and
- providing to a user a conflict resolution pane which accepts user-generated textual modifications to the merged result.

Percival discloses:

- files that are text files and displaying common lines of text and incongruous lines of text of the text files (*see Figures 3-9*); and
- providing to a user a conflict resolution pane which accepts user-generated textual modifications to a merged result (*see Figure 8: 704; Column 4: 67 to Column 5: 1 and 2, “An “Edit” button 344 allows the user to edit a selected line in the Merge Target ...” and 60-67, “If the response to decision block 960 is yes (the user is merging the versions), the system highlights the differences and places selection emphasis on the next one at block 964. The user selects the DataBase or Local version of that difference at block 966, and the system places it into the*

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Merge Target, preserving the color to show the origin at block 968. The user may then edit the line, if desired, by selecting the Edit button.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Percival into the teaching of Fontes to modify Fontes' invention to have the files as text files and to display the common layers as common lines of text and to display the incongruous lines of text; and to include providing to a user a conflict resolution pane which accepts user-generated textual modifications to the merged result. The modification would be obvious because one of ordinary skill in the art would be motivated to merge a set of changed text files and allow subsequent modifications of the merged set of changed text files through the use of a graphical user interface (*see Percival – Column 1: 22-25*).

As per **Claim 3**, the rejection of **Claim 1** is incorporated; and Fontes further discloses:

- wherein conflicts between the first and second text files are displayed and only one conflict is active at a time (*see Column 6: 26-30, “Window 1002 displays revision 302, and window 1004 displays revised base 500. In window 1002, line 1006 is shown as a dashed line, and in window 904, line 1008 is shown as a solid line. This indicates to the user that line 1006 and line 1008 are different between the two drawings.”).*

As per **Claim 4**, the rejection of **Claim 3** is incorporated; and Fontes further discloses:

- displaying version control system metadata relating to the active conflict (*see Column 9: 38-41, “Prior to applying the diff file, the comparator compares the identification values of the base drawing 300 and the diff file, and warns the user if the values don't match.”).*

As per **Claim 5**, the rejection of **Claim 4** is incorporated; and Fontes further discloses:

- wherein version control system metadata comprises a revision number, date, checkin comments, and/or user identification pertaining to the version in which data was created (*see Column 9: 13-17 and 35-38, "A diff file must contain enough information to add ... data." and "To ensure that the correct base drawing 300 is undergoing the comparison by comparator 120, the diff file contains a identification that is compared to the base drawing 300."*).

As per **Claim 6**, the rejection of **Claim 4** is incorporated; and Fontes further discloses:

- wherein version control system metadata comprises a revision number, date, checkin comments, and/or user identification pertaining to the version in which data was deleted (*see Column 9: 13-17 and 35-38, "A diff file must contain enough information to ... delete data." and "To ensure that the correct base drawing 300 is undergoing the comparison by comparator 120, the diff file contains a identification that is compared to the base drawing 300."*).

As per **Claim 7**, the rejection of **Claim 4** is incorporated; and Fontes further discloses:

- searching an active conflict of the first and second sets of stacked diffs (*see Column 9: 13-17, "A diff file must contain enough information to add, modify, and delete data ... This data is stored as a series of operations. When the user applies a diff file as a revision 302, comparator 120 iterates through the database operations and applies each one to the base drawing 300."*);

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- creating a list of revisions for lines of text deleted from the active conflict (*see Column 9: 18-22, "Viewing the diff file as a collection of records, a typical record for entity data would have an operation that is performed on the entity, e.g., update, delete, or insert; data needed if the operation is an update or insertion, and the handle of the entity, if it is an update or deletion."*);
- creating a list of revisions for lines of text added to the active conflict (*see Column 9: 18-22, "Viewing the diff file as a collection of records, a typical record for entity data would have an operation that is performed on the entity, e.g., update, delete, or insert; data needed if the operation is an update or insertion, and the handle of the entity, if it is an update or deletion."*); and
- displaying the version control system metadata relating to the deleted lines of text and/or the added lines of text (*see Column 9: 38-41, "Prior to applying the diff file, the comparator compares the identification values of the base drawing 300 and the diff file, and warns the user if the values don't match."*).

As per **Claim 8**, the rejection of **Claim 7** is incorporated; and Fontes further discloses:

- displaying creation information or deletion information for deleted lines of text (*see Column 6: 32-34, "Thus, the comparator considers revision 302 to be correct, and displays changes to revision 302 instead of revised base 500."*).

As per **Claim 9**, the rejection of **Claim 3** is incorporated; and Fontes further discloses:

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- alternatively displaying or not displaying deleted lines of text in the active conflict in the first and second set of stacked diffs (*see Column 5: 54-59, "Other indications of differences between base drawing 300 and revision 302 are possible with the present invention, e.g., lines can be displayed in different colors, can 'blink' on and off to show differences, or any other manner of indicating to the user that something has changed between the two drawings."*).

As per **Claim 10**, the rejection of **Claim 1** is incorporated; however, Fontes does not disclose:

- selecting one line of text or block of lines of text from either of the first and second sets of stacked diffs;
- copying the selected lines of text to the conflict resolution pane; and
- repeating the selecting and copying steps to produce the merged result.

Percival discloses:

- selecting one line of text or block of lines of text from either of a first and second sets of stacked diffs (*see Column 5: 60-62, "If the response to decision block 960 is yes (the user is merging the versions), the system highlights the differences and places selection emphasis on the next one at block 964."*);

- copying the selected lines of text to the conflict resolution pane (*see Column 5: 63-66, "The user selects the DataBase or Local version of that difference at block 966, and the system places it into the Merge Target, preserving the color to show the origin at block 968."*);
and

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- repeating the selecting and copying steps to produce the merged result (*see Column 5: 67 to Column 6: 1-4, "It is then determined at decision block 970 whether or not this was the last difference to be resolved. If the response to decision block 970 is no, the present invention returns to block 964, as previously described above."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Percival into the teaching of Fontes to modify Fontes' invention to include selecting one line of text or block of lines of text from either of the first and second sets of stacked diffs; copying the selected lines of text to the conflict resolution pane; and repeating the selecting and copying steps to produce the merged result. The modification would be obvious because one of ordinary skill in the art would be motivated to allow a user to identify lines of text from a set of changed text files with modifications/changes that need to be merged with another set of changed text files (*see Percival – Column 1: 22-25*).

As per **Claim 12**, the rejection of **Claim 10** is incorporated; and Fontes further discloses:

- moving to a successive or previous conflict (*see Column 6: 4-8, "If the user wants the final drawing to look like the revision 302, the user can select the next button 914 to go to the next change. If the user goes past a change and wants to review it again, the user can review previous changes by selecting button 912 ..."*).

As per **Claim 13**, the rejection of **Claim 1** is incorporated; and Fontes further discloses:

- alternatively displaying or not displaying deleted lines of text in the first and second sets of stacked diffs (*see Column 5: 54-59, "Other indications of differences between base*

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drawing 300 and revision 302 are possible with the present invention, e.g., lines can be displayed in different colors, can 'blink' on and off to show differences, or any other manner of indicating to the user that something has changed between the two drawings.”).

As per **Claim 14**, the rejection of **Claim 1** is incorporated; and Fontes further discloses:

- alternatively displaying or not displaying annotations with the first and second sets of stacked diffs (*see Figures 16A and 16B; Column 7: 56-63, “FIGS. 16A and 16B illustrate summaries of the comparison presented by the present invention. FIG. 16A illustrates the comparator 120 of the present invention outputting on window 1600 a list of all files compared in the comparison described in FIG. 15. The summary is shown in result order in FIG. 16A, and file alphabetical order in FIG. 16B.”).*

Claim 20 is a computer readable medium claim corresponding to the method claim above (Claim 1) and, therefore, is rejected for the same reason set forth in the rejection of Claim 1.

As per **Claim 16**, the rejection of **Claim 20** is incorporated; and Fontes further discloses:

- wherein simultaneously displaying the first and second sets of stacked diffs comprises displaying version control metadata relating to an active conflict (*see Column 9: 38-41, “Prior to applying the diff file, the comparator compares the identification values of the base drawing 300 and the diff file, and warns the user if the values don't match.”).*

As per **Claim 18**, the rejection of **Claim 20** is incorporated; and Fontes further discloses:

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- computer program code for displaying annotations in the first and second sets of stacked diffs (*see Figures 16A and 16B; Column 7: 56-63, "FIGS. 16A and 16B illustrate summaries of the comparison presented by the present invention. FIG. 16A illustrates the comparator 120 of the present invention outputting on window 1600 a list of all files compared in the comparison described in FIG. 15. The summary is shown in result order in FIG. 16A, and file alphabetical order in FIG. 16B."*).

As per **Claim 19**, the rejection of **Claim 20** is incorporated; and Fontes further discloses:

- computer program code for alternatively displaying or not displaying deleted lines of text in the first and second sets of stacked diffs (*see Column 5: 54-59, "Other indications of differences between base drawing 300 and revision 302 are possible with the present invention, e.g., lines can be displayed in different colors, can 'blink' on and off to show differences, or any other manner of indicating to the user that something has changed between the two drawings."*).

As per **Claim 21**, the rejection of **Claim 20** is incorporated; however, Fontes does not disclose:

- computer program code for selecting one or more lines of text from each of the first and second sets of stacked diffs and for copying the selected lines of text to a conflict resolution pane.

Percival discloses:

- computer program code for selecting one or more lines of text from each of a first and second sets of stacked diffs and for copying the selected lines of text to a conflict resolution pane

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(see Column 4: 9-12, “To merge the files, User A must mark blocks or lines of code to be excluded from the target (i.e., the file which will be checked into the database), and then saves and checks in the resulting file.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Percival into the teaching of Fontes to modify Fontes’ invention to include computer program code for selecting one or more lines of text from each of the first and second sets of stacked diffs and for copying the selected lines of text to a conflict resolution pane. The modification would be obvious because one of ordinary skill in the art would be motivated to allow a user to identify lines of text from a set of changed text files with modifications/changes that need to be merged with another set of changed text files *(see Percival – Column 1: 22-25)*.

8. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fontes** in view of **Percival** as applied to Claim 1 above, and further in view of US **6,275,223 (hereinafter “Hughes”)**.

As per **Claim 2**, the rejection of **Claim 1** is incorporated; however, Fontes and Percival do not disclose:

- wherein the first and second sets of stacked diffs can be scrolled together.

Hughes discloses:

- wherein the first and second sets of stacked diffs can be scrolled together *(see Column 12: 43-56, “The original source code and new source code can be scrolled up and down*

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together by activation of vertical scroll bar 1505. Respective first and second source code windows each have a corresponding respective horizontal scroll bar 1506, 1513 for enabling horizontal scrolling of code items within the source code windows.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Hughes into the teaching of Fontes to modify Fontes’ invention to include wherein the first and second sets of stacked diffs can be scrolled together. The modification would be obvious because one of ordinary skill in the art would be motivated to improve usability in visual comparison of the software files by comparing the contents of the software files at the same location.

9. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fontes** in view of **Percival** as applied to Claim 10 above, and further in view of US 6,407,753 (hereinafter “**Budinsky**”).

As per **Claim 11**, the rejection of **Claim 10** is incorporated; however, Fontes and Percival do not disclose:

- undoing the selection and copying steps.

Budinsky discloses:

- undoing the selection and copying steps (*see Column 9: 35-38, “A determination is then made as to whether the selected rule is disabled (step 603), for example, by either an ‘Undo’ operation manually selected by the user, or manually disabled by the user upon viewing the rule set.”).*

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Budinsky into the teaching of Fontes to modify Fontes' invention to include undoing the selection and copying steps. The modification would be obvious because one of ordinary skill in the art would be motivated to revert the selected data/process back to its original state when the selected data/process produces an undesirable result.

Response to Arguments

10. Applicant's arguments filed on March 3, 2009 have been fully considered, but they are not persuasive.

In the Remarks, Applicant argues:

a) Percival fails to remedy the deficient disclosure of Fontes. Percival describes displaying different versions of a file, but does not disclose or suggest displaying "incongruous lines of text included in each of the first and second sets of stacked diffs...aligned with blank lines of the other stacked diff" as claimed. Figures 3-9 illustrate the various displays disclosed by Percival. At best, Figure 6 shows a "Split View" in which two versions, a "DataBase version" and a "Local version" are shown side-by-side. See Percival, Figure 6 and col. 5, lines 11-13. However, lines of text included in both versions but having incongruities (e.g., lines 14 and 16- 19 in Figure 6) are not aligned with blank lines, but are instead shown opposite each other. See Percival, Figure 6. The other views disclosed by Percival (Composite View, Split-Merge View, and Composite-Merge View) show the DataBase and Local versions interleaved with or above each other,

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possibly alongside a Merge Target, and do not depict incongruous lines of text in each version aligned with blank lines in the other version. See Percival, FIGS. 3-5 and 7-9, col. 3, line 63 to col. 4, line 30. Although the Merge Target can include blank lines, such blank lines merely correspond to lines that are absent from the Merge Target (e.g., lines 16-19 of window 704 in Figure 7), and, therefore, cannot reasonably be interpreted as incongruous lines included in the Merge Target. Moreover, only a single Merge Target is disclosed in Percival and therefore the Merge Target cannot reasonably be interpreted as one of a pair of stacked diffs, but is merely a single entity. Therefore, Percival does not disclose or suggest the claimed feature of displaying "incongruous lines of text included in each of the first and second sets of stacked diffs...aligned with blank lines of the other stacked diff."

Examiner's response:

a) Examiner disagrees. With respect to the Applicant's assertion that Percival does not disclose or suggest the claimed feature of displaying "incongruous lines of text included in each of the first and second sets of stacked diffs...aligned with blank lines of the other stacked diff," the Examiner respectfully submits that Fontes clearly discloses "missing lines of each of the first and second sets of stacked diffs are aligned with blank lines of the other stacked diff" (*see Figures 10 and 12; Column 6: 40-48, "... the user can define which file is considered the revision 302 and which file is considered the revised base 500, such that the user-defined revision file 302 appears on the left and the user-defined revised base 500 file appears on the right."*; Column 7: 1-5, "Window 1200 contains windows 1202 and 1204, which display the layer information for base drawing 300 and revision 302. Window 1200 can also be used with

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the merge and parallel evolution mode of the present invention. If a layer is missing from either base drawing 300 or revision 302, the layer appears as a blank line in the other drawing file's window 1202 or 1204."; Column 9: 11 and 12, *"The comparator 120 then uses the diff file as the revision file 302 for comparison purposes."*). Note that missing lines between the two sets of diff files are aligned with blank lines. Examiner further submits that Percival clearly discloses incongruous lines of text (*see, e.g., Figure 6*). As acknowledged by the Applicant, Figure 6 of Percival clearly illustrates lines of text included in two versions of a file set having incongruities. However, the incongruities are not aligned with blank lines but are instead aligned opposite each other. Thus, one of ordinary skill in the art would be motivated to incorporate the teaching of Percival into the teaching of Fontes to modify Fontes' invention to align incongruous lines of text with blank lines in order to enhance usability when comparing two sets of diff files by clearly displaying the incongruous lines of text between the two sets of diff files.

Therefore, for at least the reason set forth above, the rejections made under 35 U.S.C. § 103(a) with respect to Claims 1 and 20 are proper and therefore, maintained.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Q. C./

Examiner, Art Unit 2191

/Wei Y Zhen/

Supervisory Patent Examiner, Art Unit 2191